

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

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Please amend the paragraph beginning at line 14, through line 25 as indicated below:

Japanese Patent Application Laid-Open No. 2002-344414 (hereinafter also referred to as "Patent Document 1") 4 shows one example of an OFDM signal receiver device having a Viterbi decoder. The OFDM signal receiver device in Patent Document 1 comprises an equalizer for waveform equalizing an amplitude modulation signal obtained by a Fourier transform and a transmission channel decoding circuit having a Viterbi decoder therein. The receiver device gives a less weight to a branch metric corresponding to a signal modulated into a subcarrier located at a band edge of the OFDM signal symbol than the weight given to a branch metric corresponding to a signal modulated into a subcarrier at the band center of the symbol. Thereby, the signal modulated into the subcarrier positioned at the band edge of the symbol has a lower degree of contribution to the state metric than the signal modulated into the subcarrier positioned at the band center.

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Please amend the paragraph beginning at line 9, through page 5, line 2 as indicated below:

An embodiment of the OFDM signal receiver device comprises: a Fourier transform unit for performing a Fourier transform on a received OFDM signal and outputting a subcarrier component obtained as a result of the Fourier transform; a pilot ~~signal~~-extracting unit for

extracting a pilot signal contained in the subcarrier component; a known signal generating unit for generating and outputting a known signal corresponding to the pilot signal; a first divider unit for dividing the pilot signal by the known signal and outputting a transmission channel characteristic corresponding to the pilot signal; an interpolation filter unit for calculating a transmission channel characteristic corresponding to the subcarrier component based on the transmission channel characteristic corresponding to the pilot signal; a second divider unit for dividing the subcarrier component output from the Fourier transform unit by the transmission channel characteristic output from the interpolation filter unit to output a demodulated signal; a noise power-calculating unit for calculating an electric power corresponding to a noise component contained in the demodulated signal based on the demodulated signal and outputting a noise power signal corresponding to a result of the calculation; a weighting factor-calculating unit for calculating a weighting factor for a branch metric based on the noise power signal and the transmission channel characteristic corresponding to the subcarrier component that is output from the interpolation filter unit; and a decoding unit for decoding the demodulated signal based on the weighting factor.

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Please amend the paragraph beginning at line 2, through line 16 as indicated below:

Fig. 1 shows a configuration diagram of an OFDM signal receiver device according to the present preferred embodiment. Referring to Fig. 1, a signal obtained by frequency-converting a received OFDM signal into a predetermined signal band (hereinafter also referred to as "S1") is input into a Fourier transform unit 1. S1 that is input to the Fourier transform unit 1

undergoes a Fourier transform with predetermined timing, and the result of the Fourier transform is input to a pilot extracting unit 2 and a delay adjusting unit 6. The pilot extracting unit 2 extracts a received pilot signal contained in the received OFDM signal and outputs it to a first divider unit 4. A pilot signal that is inserted into the OFDM signal by the transmission device and corresponds to the received pilot signal, that is, a transmission pilot signal, is set in the receiver device in advance, and it is a known signal. A known signal generating unit 3 generates the transmission pilot signal that is the known signal and outputs it to the first divider unit 4. It should be noted that the known signal generating unit 3 generates the transmission pilot signal with the timing that is in synchronization with the output from the pilot signal extracting unit 2.

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Please amend the paragraph beginning at line 15, through line 25 as indicated below:

The foregoing information corresponding to the modulation format or the coding rate may be extracted from a received signal and input into the gain table unit 150 if the received signal contains the information corresponding to the modulation format or the coding rate; or alternatively, the foregoing information may be preset in the gain table ~~150 unit~~ unit 150 in advance if the modulation format or the coding rate used is already known in the transmission device. In addition, the conversion table, function, or the like used in the adjustment at the gain table unit 150 and the offset table unit 151 is required to measure the error rate after demodulation while changing various conditions of received signal using a simulator or an actually constructed piece of hardware. Herein, examples of the modulation format include QPSK, 64QAM, etc., and examples of the coding rate include 1/2, 7/8, etc.